

## MCCB h3 x160 TM 3x160A 40kA

## HNA160U

## Architecture

Neutral position	without neutral
Number of protected poles	3
Number of poles	3 P
Type of pole	3P3D
Functions	
Trip Unit	TM A/F
Concurrently switching N-neutral	no
Compatibility	
Compatible with DIN rail mounting	no
Controls and indicators	
Motor drive integrated	no
Main electrical features	
Rated operational voltage Ue	220 / 415 V
Frequency	50/60 Hz
Voltage	
Rated insulation voltage	690 V
Rated impulse withstand voltage	8 kV
With under voltage release	no
Electric current	
Rated current	160 A
Thermal protection nob setting xIN	0,63 / 0,8 / 1
Rating current 10°C according to IEC 60947	188,5 A
Rating current 150°C according to IEC 60947	185,2 A
Rating current 20°C according to IEC 60947	181,8 A
Rating current 25°C according to IEC 60947	178,3 A
Rating current 30°C according to IEC 60947	174,8 A
Rating current 35°C according to IEC 60947	171,2 A
Rating current 40°C according to IEC 60947	167,5 A
Rating current 45°C according to IEC 60947	163,8 A
Rating current 50°C according to IEC 60947	160 A

Technical Properties	
Rating current 55°C according to IEC 60947	156 A
Rating current 60°C according to IEC 60947	152 A
Rating current 65°C according to IEC 60947	147,8 A
Rating current 70°C according to IEC 60947	143,6 A
Rated service breaking capacity Ics under 220V AC	40 kA
according IEC 60947-2	
Rated service breaking capacity Ics under 230V AC	40 kA
according IEC 60947-2	
Rated service breaking capacity Ics under 240V AC	40 kA
according IEC 60947-2	
Rated service breaking capacity Ics under 380V AC	20 kA
according IEC 60947-2	
Rated service breaking capacity lcs under 400V AC	20 kA
according IEC 60947-2	
Rated service breaking capacity lcs under 415V AC	20 kA
according IEC 60947-2	
Rated ultimate short-circuit breaking capacity Icu	85 kA
under 230V AC IEC 60947-2	0514
Rated ultimate short-circuit breaking capacity Icu	85 kA
under 240V AC IEC 60947-2	10.1.1
Rated ultimate short-circuit breaking capacity lcu	40 kA
under 400V AC IEC 60947-2	40 l. 4
Rated ultimate short-circuit breaking capacity Icu	40 kA
under 415V AC IEC 60947-2	100 / 105 / 100 A
Range of the thermal adjustment Rated ultimate short-circuit breaking capacity Icu	100 / 125 / 160 A 40 kA
under 380V AC IEC 60947-2	40 KA
under 300V AC IEC 00947-2	
Frequency	
Frequency	
Frequency	50 to 60 Hz
Frequency	50 to 60 Hz
	50 to 60 Hz
Frequency Power	
Power  Power loss per pole at 0.63*In	5,7 W
Power  Power loss per pole at 0.63*In  Power loss per pole at 0.8*In	5,7 W 8,9 W
Power  Power loss per pole at 0.63*In  Power loss per pole at 0.8*In  Total power loss at 0.63*In	5,7 W 8,9 W 17,1 W
Power  Power loss per pole at 0.63*In  Power loss per pole at 0.8*In  Total power loss at 0.63*In  Total power loss at 0.8*In	5,7 W 8,9 W 17,1 W 26,7 W
Power  Power loss per pole at 0.63*In  Power loss per pole at 0.8*In  Total power loss at 0.63*In  Total power loss at 0.8*In  Total power loss at 0.8*In	5,7 W 8,9 W 17,1 W 26,7 W 43,8 W
Power  Power loss per pole at 0.63*In  Power loss per pole at 0.8*In  Total power loss at 0.63*In  Total power loss at 0.8*In	5,7 W 8,9 W 17,1 W 26,7 W
Power  Power loss per pole at 0.63*In  Power loss per pole at 0.8*In  Total power loss at 0.63*In  Total power loss at 0.8*In  Total power loss at 0.8*In	5,7 W 8,9 W 17,1 W 26,7 W 43,8 W
Power  Power loss per pole at 0.63*In  Power loss per pole at 0.8*In  Total power loss at 0.63*In  Total power loss at 0.8*In  Total power loss at 0.8*In  Power loss under IN  Power loss per pole at In	5,7 W 8,9 W 17,1 W 26,7 W 43,8 W
Power  Power loss per pole at 0.63*In  Power loss per pole at 0.8*In  Total power loss at 0.63*In  Total power loss at 0.8*In  Total power loss at 0.8*In  Total power loss at 10.8*In  Total power loss under IN  Power loss per pole at In  Endurance  Electric endurance in number of cycles	5,7 W 8,9 W 17,1 W 26,7 W 43,8 W 14,6 W
Power  Power loss per pole at 0.63*In  Power loss per pole at 0.8*In  Total power loss at 0.63*In  Total power loss at 0.8*In  Total power loss at 1.8*In  Total power loss at 0.8*In  Total power loss under IN  Power loss per pole at In  Endurance	5,7 W 8,9 W 17,1 W 26,7 W 43,8 W 14,6 W
Power  Power loss per pole at 0.63*In  Power loss per pole at 0.8*In  Total power loss at 0.63*In  Total power loss at 0.8*In  Total power loss under IN  Power loss per pole at In  Endurance  Electric endurance in number of cycles  Number of mechanical operations	5,7 W 8,9 W 17,1 W 26,7 W 43,8 W 14,6 W
Power  Power loss per pole at 0.63*In  Power loss per pole at 0.8*In  Total power loss at 0.63*In  Total power loss at 0.8*In  Total power loss at 0.8*In  Total power loss at 10.8*In  Total power loss under IN  Power loss per pole at In  Endurance  Electric endurance in number of cycles	5,7 W 8,9 W 17,1 W 26,7 W 43,8 W 14,6 W
Power  Power loss per pole at 0.63*In  Power loss per pole at 0.8*In  Total power loss at 0.63*In  Total power loss at 0.8*In  Total power loss under IN  Power loss per pole at In  Endurance  Electric endurance in number of cycles  Number of mechanical operations  Dimensions	5,7 W 8,9 W 17,1 W 26,7 W 43,8 W 14,6 W
Power  Power loss per pole at 0.63*In  Power loss per pole at 0.8*In  Total power loss at 0.63*In  Total power loss at 0.8*In  Total power loss under IN  Power loss per pole at In  Endurance  Electric endurance in number of cycles  Number of mechanical operations  Dimensions  Depth of installed product	5,7 W 8,9 W 17,1 W 26,7 W 43,8 W 14,6 W
Power  Power loss per pole at 0.63*In Power loss per pole at 0.8*In Total power loss at 0.63*In Total power loss at 0.8*In Total power loss under IN Power loss per pole at In  Endurance  Electric endurance in number of cycles Number of mechanical operations  Dimensions  Depth of installed product Height of installed product	5,7 W 8,9 W 17,1 W 26,7 W 43,8 W 14,6 W
Power  Power loss per pole at 0.63*In  Power loss per pole at 0.8*In  Total power loss at 0.63*In  Total power loss at 0.8*In  Total power loss under IN  Power loss per pole at In  Endurance  Electric endurance in number of cycles  Number of mechanical operations  Dimensions  Depth of installed product  Height of installed product  Width of installed product	5,7 W 8,9 W 17,1 W 26,7 W 43,8 W 14,6 W
Power  Power loss per pole at 0.63*In Power loss per pole at 0.8*In Total power loss at 0.63*In Total power loss at 0.8*In Total power loss under IN Power loss per pole at In  Endurance  Electric endurance in number of cycles Number of mechanical operations  Dimensions  Depth of installed product Height of installed product	5,7 W 8,9 W 17,1 W 26,7 W 43,8 W 14,6 W 1000 4000
Power  Power loss per pole at 0.63*In Power loss per pole at 0.8*In Total power loss at 0.63*In Total power loss at 0.8*In Total power loss at 0.8*In Total power loss under IN Power loss per pole at In  Endurance  Electric endurance in number of cycles Number of mechanical operations  Dimensions  Depth of installed product Height of installed product Width of installed product Critical distance switching emission/earthed part bottom	5,7 W 8,9 W 17,1 W 26,7 W 43,8 W 14,6 W 1000 4000
Power  Power loss per pole at 0.63*In Power loss per pole at 0.8*In Total power loss at 0.63*In Total power loss at 0.8*In Total power loss at 0.8*In Total power loss under IN Power loss per pole at In  Endurance  Electric endurance in number of cycles Number of mechanical operations  Dimensions  Depth of installed product Height of installed product Width of installed product Critical distance switching emission/earthed part left	5,7 W 8,9 W 17,1 W 26,7 W 43,8 W 14,6 W 1000 4000 68 mm 130 mm 75 mm 40 mm
Power  Power loss per pole at 0.63*In Power loss per pole at 0.8*In Total power loss at 0.63*In Total power loss at 0.8*In Total power loss at 0.8*In Total power loss under IN Power loss per pole at In  Endurance  Electric endurance in number of cycles Number of mechanical operations  Dimensions  Depth of installed product Height of installed product Width of installed product Critical distance switching emission/earthed part bottom	5,7 W 8,9 W 17,1 W 26,7 W 43,8 W 14,6 W 1000 4000 68 mm 130 mm 75 mm 40 mm 50 mm
Power  Power loss per pole at 0.63*In Power loss per pole at 0.8*In Total power loss at 0.63*In Total power loss at 0.8*In Total power loss at 0.8*In Total power loss under IN Power loss per pole at In  Endurance  Electric endurance in number of cycles Number of mechanical operations  Dimensions  Depth of installed product Height of installed product Width of installed product Critical distance switching emission/earthed part left Critical distance switching emission/earthed part right	5,7 W 8,9 W 17,1 W 26,7 W 43,8 W 14,6 W 1000 4000 68 mm 130 mm 75 mm 40 mm 50 mm
Power  Power loss per pole at 0.63*In Power loss per pole at 0.8*In Total power loss at 0.63*In Total power loss at 0.8*In Total power loss at 0.8*In Total power loss under IN Power loss per pole at In  Endurance  Electric endurance in number of cycles Number of mechanical operations  Dimensions  Depth of installed product Height of installed product Width of installed product Critical distance switching emission/earthed part left Critical distance switching emission/earthed part right Critical distance switching emission/earthed part top	5,7 W 8,9 W 17,1 W 26,7 W 43,8 W 14,6 W  1000 4000  68 mm 130 mm 75 mm 40 mm  50 mm 450 mm 40 mm

Connection	
Type of connection	with screw
Settings	
Range of the magnetic adjustment	1600 A
Equipment	
Can be accessorized	yes
Standards	
Standard text	IEC 60947-2
European directive WEEE	concerned
Product categories described in the W3E directive 2012/19/EU	Category 5
Safety	
Protection index IP	IP4X
Use conditions	
Degree of pollution according to IEC 60664 / IEC 60947-2	3
Altitude	2000 m
temperatur	

50 °C

Temperature of calibration